September 19, 2017

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Project: #3028516
11340 23rd Ave. NE, Seattle, WA

Subject: Project #3028516 – Mature Trees On-site Support Habitat for Merlin (*Falco columbarius*).

Juvenile Female Black Merlin (photo by Kim McCormick)

Thank you for the opportunity to comment on Project #3028516. We are co-investigators in an independent research project studying Merlins, a small falcon species that resides year-round in Seattle. Our comments will focus on the mature trees found within the boundaries of Project #3028516, and their role in Merlin habitat.

Background

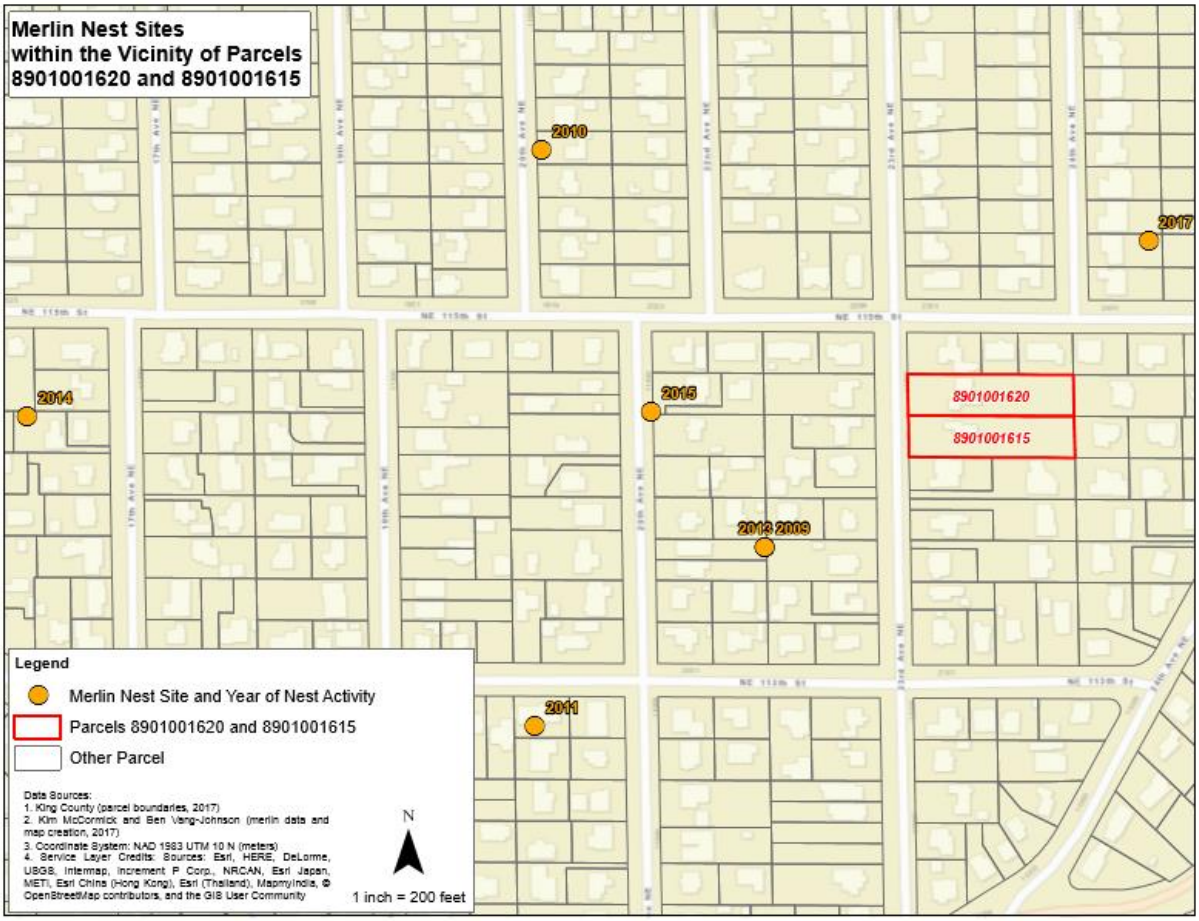
Merlins are members of the falcon family, and are smaller than the better-known Peregrine Falcon. As birds of prey, Merlins hunt and eat primarily small birds and large flying insects. There are three subspecies of Merlin found in North America; the migratory "Taiga" subspecies, the pale "Prairie" subspecies found primarily in the central plains of the U.S. and Canada, and the darker "Black" subspecies which inhabits the northwestern United States, British Columbia, and southern Alaska.[1]

Merlins are generally considered to be uncommon within their range, though their population has increased in western North America and elsewhere on the continent in recent decades, presumably due to recovery from the impacts of DDT. The Taiga subspecies of Merlin are winter visitors to western Washington, whereas the "Black" subspecies historically were rare and localized breeders, found mainly in the coastal forests. Merlins were placed on the Washington State Candidate List as a Species of Concern in 1997, due to apparent rarity and a concern about the effects of timber harvest practices. Since the early 2000's, Merlin nests have been found in urban/suburban settings, particularly within the Puget Sound region, and in 2010 Merlins were removed from the Washington candidate list.[2]

[1] Cornell Laboratory of Ornithology, All About Birds – Merlin. https://www.allaboutbirds.org/guide/Merlin/id.
[2] Washington Department of Fish and Wildlife. Threatened and Endangered Wildlife – State of Washington, Annual Report 2011 (http://wdfw.wa.gov/publications/01385/wdfw01385.pdf).

The Victory Heights neighborhood, where the Project #3028516 site is located, is an established Merlin nesting territory.

The first known nesting pair of Merlins in Seattle was discovered in 2008 in the Victory Heights neighborhood.[3] [4] Merlins have nested in within a few blocks of the Project #3028516 site for all but two breeding seasons since 2009 (see the street map, below). From our observations, it is likely that the same pair of Merlins nested in the Victory Heights area from 2008 through 2015. In 2017, we found that a new pair had taken up residence in Victory Heights, less than one block from the Project #3028516 site. The fledglings from this nest used trees within the Project #3028516 site as perches for prey deliveries from their parents. This long-term use of distinct breeding territories by different, sequential, Merlin pairs has been observed at several other sites within our study area. It is likely that Merlins will continue to nest in the Victory Heights neighborhood for years to come.[5]



Street map showing Merlin nest sites near the Project #3028516 site, since 2009. The parcels located within Project#3028516 are outlined in RED.

[3] Seattle Times. Merlins Nest in Northgate-area Neighborhood. July 22, 2008. http://www.seattletimes.com/seattle-news/merlins-nest-in-northgate-area-neighborhood/.

[4] Seattle Audubon Society. (http://www.seattleaudubon.org/sas/About/Conservation/Archive/Merlins.aspx)

[5] Kim McCormick and Ben Vang-Johnson, unpublished observations.

The site of Project #3028516, in its current state, has the potential to become a future Merlin nest site.

Instead of building their own nests, Merlins occupy stick nests built during previous breeding seasons by other species, such as crows. These nests are located near the top of mature conifers. In our study of Merlins in the Seattle area, Douglas Fir is the most common nest tree species. Other tree species in which we have documented Merlin nests are Western White Pine and Grand Fir. Merlin nest trees are located within clumps or stands of trees, with nearby trees serving as tall look-out perches, perches for mating, prey transfers, eating, and caching of prey. This aerial map of previous Merlin nest sites near the location of Project #3028516 illustrates the significant amount of tree canopy coverage that is preferred by Merlins.

Aerial View showing the tree canopy and Merlin nest site locations near the Project #3028516 site.

Merlins typically chose a new nest each year within their nesting territory. For this reason, it is difficult to state, with certainty, that a specific parcel of land will host a pair of nesting Merlins. However, it is possible to evaluate a site for characteristics that are common to other known Merlin nest sites. We have compared the topography of the Project #3028516 site to a set of nine nest sites from the 2017 breeding season. These nests were located within North Seattle, Shoreline, Lake Forest Park, and Edmonds, and the data set includes this year's nest in the Victory Heights neighborhood. As shown in Tables I and II, the average elevation of the Project #3028516 site, approximately 277 feet, falls comfortably within the elevation range typically found for Merlin nest sites. We have observed that Merlin nest trees tend to be sited on ridges which run in a north to south direction. The topography of the project site fits this ridgetop orientation.

Merlin nest trees are generally over 100 feet tall (Table I). The Project #3028516 site is heavily-treed. We noted several trees within the project boundaries that are species favored by Merlins as nest trees (i.e. Douglas Fir and White Pine), which we determined to be greater than 100 feet in height (see Table III); and could potentially serve as Merlin nest trees. It should be noted that the trees listed in Table III were specimens that we were able to measure by standard methods without trespassing on the property. There several other potential nest trees that we were unable to measure from the street. We included a very large, multi-trunked Deodar Cedar in our tree height data set, because we have observed that Deodar Cedars are favored for Merlin mating and prey transfers. Multiple Western Red Cedars are also located within the boundaries of Project #3028516. Though not generally used as nest trees, cedars are often used by Merlins for caching prey and as perches for eating. Other evergreen and deciduous trees on the property may serve as habitat for Merlin prey species.

Table I. Merlin Nest Site Characteristics

Nest ID	**Elevation (ft)**	**Tree Species**	**Tree Height (ft)**
EDE-2017	466.5	Grand Fir	119.4
MB-2017	103.5	Douglas Fir	104.0
VH-2017	239.5	Douglas Fir	121.3
OH-2017	269.6	Douglas Fir	110.1
WW-2017	365.3	Douglas Fir	117.5
WWE-2017	337.1	Douglas Fir	101.9
LFP-2017	259.4	Douglas Fir	109.0
EL-2017	418.0	Douglas Fir	123.5
BV-2017	429.2	Douglas Fir	123.1
Average value	**320.9**		**114.4**

Table II. Project #3028516 Site Elevation

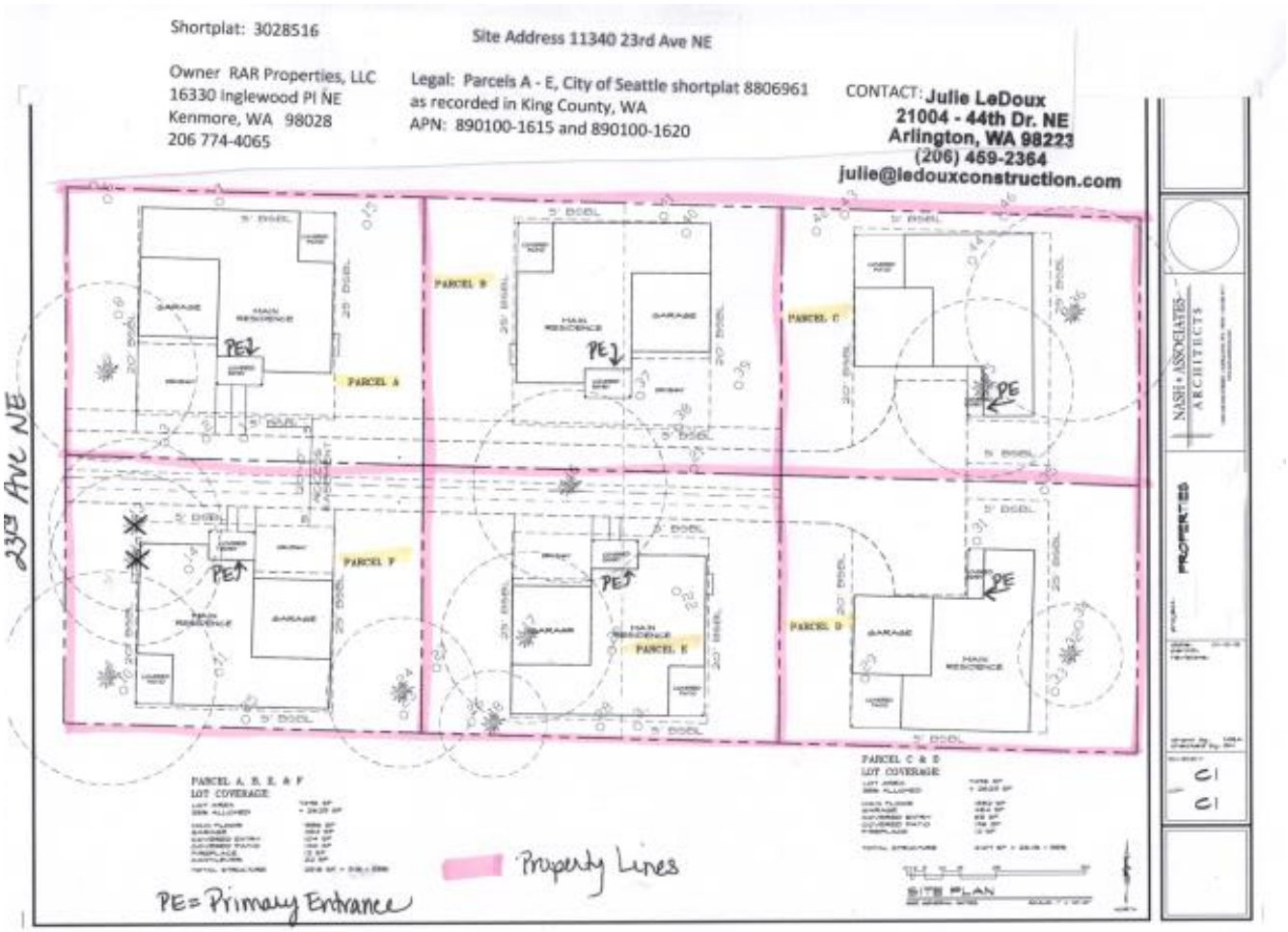
Minimum Elevation (ft)	257.0
Maximum Elevation (ft)	290.4
Average Elevation (ft)	**277.2**

Table III. Height of Select Trees Found within Project #3028516

Tree Species	**Location**	**Height (ft)**
Douglas Fir	Northern-most DF, near road	123.6
Douglas Fir	Next-northern-most DF, near road	132.2
White Pine (Western?)	Near road, next to cedars	109.9
White Pine (Western?)	Behind house	112.4
Deodar Cedar	By road, south side of property	110.5

Concerns regarding the fate of mature trees located within the boundaries of Project#3028516.

In Project #3028516, property on which two single family homes are currently sited is to be subdivided into six single family home parcels connected by a common driveway. The application for development of the site implies that the property has already been subdivided into five parcels. However, tax assessor maps show only two parcels (#8901001620 and #8901001615). After viewing the site, it appears that some of the site's exceptional trees may have been left off the site plan. In addition, several circles which presumably indicate the location of trees on the property are drawn such as they fall in, and immediately adjacent to, the building envelopes of the six proposed structures, as well as within the common driveway, implying that these trees will be removed.



Proposed Site Plan of Project #3028516

Recommendations

After reviewing the site plan for Project #3028516, viewing the site from the street, and analyzing our data regarding site elevation and tree height, we have the following recommendations:

1. Conduct an accurate assessment of trees greater than six inches in diameter, as well as trees determined to be exceptional for their species.
2. Create an accurate tree map for the project site.
3. Do not allow waivers for the removal of exceptional trees on site, due to the ecological importance of the site as a Merlin habitat.
4. Consider the designation of Heritage Trees on the site.
5. Consider the treatment of the trees on the site as a "grove" of trees with significant ecological value.
6. Investigate the legality of the assumption that the property has previously been divided into five parcels.
7. Do not approve the proposed subdivision of the site into six separate parcels.
8. Limit the re-plat of the site to no more than four parcels, with the structures sited such as to avoid the removal of exceptional trees.

As a species, Merlins have rebounded from the effects of DDT. Within Washington State, the "Black" subspecies of Merlins are adapting successfully to urban/suburban habitats. However, retention of this habit is crucial for the continued success of this subspecies. Merlins require a tall conifer with a large stick nest to serve as a nest tree, as well as several additional trees nearby to serve as perches for mating, prey transfers and for caching prey. Neighborhoods that are established Merlin nesting territories, such as Victory Heights, are at risk of losing their resident Merlin population due to inappropriately-planned development which values maximum lot coverage above habitat preservation. We hope that you will consider our recommendations, and minimize tree removal as much as possible in Project #3028516.

Thank you,

Kim McCormick

Ben Vang-Johnson

Seattle-area Merlin Research Project
www.wos.org/research

Copied:
Debora Juarez, Seattle City Council, District 5
Sandra Pinto de Bader, Seattle Urban Forestry Commission
State Representative Gerry Pollet
John Brosnan, Executive Director, Seattle Audubon Society
Constance Sidles, Conservation Committee Chair, Seattle Audubon Society
John Lombard, District 5 Community Network

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Subject:	Public Comment - Project #3028516, re: Merlin habit protection
Date:	Tuesday, September 19, 2017 10:08:54 AM
Attachments:	Comments_project 3028516 McCormick_Vang-Johnson.pdf

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Please see the attached PDF file for the full text of our comments and supporting data.

Thank you,

Kim McCormick

Ben Vang-Johnson

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